

MISSISSIPPI INJURY REPORT 2008

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Office of Preventive Health

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Definitions

Injuries are caused by physical forces we encounter in our daily lives.

Unintentional Injury: Injury occurring without conscious attempt to inflict harm to self or another person. Unintentional injuries are often called accidents; however, most are predictable and often preventable.

Intentional Injury: Injury that is an assault to one's self or another person. This type of injury is often referred to as violence.

Homicide or Assault: Physical trauma inflicted intentionally by one person against another, leading to death or injury.

Medical Cost: Financial cost for fatalities, including coroner/medical examiner, medical transport, emergency department fees (e.g., transportation and administrative cost), inpatient hospital fees, and follow-up care.

Quality of Life Cost: Estimated dollar value placed on pain, suffering, and lost quality of life to the injured person and his or her family.

Suicide: Trauma intentionally inflicted by a person on himself or herself that leads to death.

Work Loss Costs: Financial burden to the workplace resulting from fatalities, including the present value of lifetime productivity losses.

Introduction to Injury

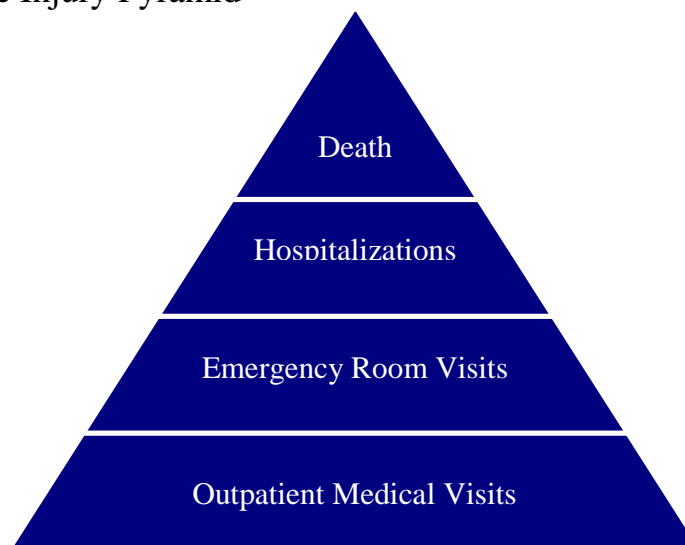
Mississippi's Injury Burden

Unintentional injuries and death are preventable, yet they continue to be one of the most costly and tragic public health problems in our nation. In Mississippi, **unintentional injury is the leading cause of death** among persons ages one to 44 years.¹ The five leading causes of injury-related fatalities in Mississippi are motor vehicle crashes, poisoning, falls, inhalation and ingestion, and fires and flames.

The Injury Pyramid

For every death, numerous Emergency Department visits, hospitalizations, and out-patient visits to the doctor's office occur. The levels below deaths are wider because they show that more people are affected by non-fatal injuries. For each death reported, there are many more people affected by unintentional injury. By preventing injury-related death, other non-fatal injuries can also be avoided.

Figure 1 The Injury Pyramid



Intention of the Injury Report

This report is intended to inform the public about injury-related fatalities that occur every year in the state of Mississippi. The reader of this report should gain knowledge about the most deadly types of injuries that occur, the amount of progress that is currently being made toward decreasing fatality rates, and suggestions for prevention activities that can be implemented in the community and in the home.

2007 State Facts

- Mississippi's motor vehicle fatality rate (32.9 per 100,000) ranked highest nationally and is more than twice the national average of 15.2 per 100,000. Each year, an estimated 921 Mississippians die in a motor vehicle crash.
- Approximately 221 people in Mississippi die each year from poisoning and exposure to noxious substances.
- An estimated 183 Mississippians die annually from falls. Of these, 84% were 65 years of age or older.
- Mississippi ranks ninth in fire and flame mortality rate. Each year, 82 Mississippians die from fires and flames.
- An average of 81 Mississippians die annually from some type of inhalation or ingestion of food or other objects causing an obstruction of the respiratory tract or suffocation. Approximately 68% of these deaths occur among persons age 65 years and older.

Table 1 Top Five Causes of Injury-Related Death in Mississippi, 2003 – 2007

<i>Type of Event</i>	<i>Total Count</i>	<i>Average Number per Year</i>
Motor Vehicle Crashes	4607	921
Poisonings	1105	221
Falls	917	184
Fires and Flames	397	80
Inhalation/Ingestion	395	79

Source: Mississippi State Department of Health, Vital Statistics, 2003 – 2007.

The Injury Report Card

What is an Injury Report Card?

Since its original release by the Mississippi State Department of Health in 1998, the Injury Report Card assigns “grades” to the State of Mississippi according to changes in rates of unintentional injury per 100,000 people. The top five injury-related causes of death are examined and graded, allowing an at-a-glance snapshot of improvements and areas of need within the state.

How are grades assigned?

The following grading scale was created when the Injury Report Card was originally developed. Grades are based primarily on the percentage of change in the rates from 2003 – 2007. The following guidelines were used:

- A** = >25% improvement or current status remains very good
- B** = 11-25% improvement or current status remains satisfactory
- C** = no significant change
(between 11% improvement and 11% worsening)
- D** = 11-25% worse or current status remains unsatisfactory
- F** = >25% worse or current status remains very poor

Motor Vehicle Crashes

GRADE: D

Table 2 Motor vehicle crash-related deaths, 2003 – 2007

<i>Age (years)</i>	2003		2007	
	<i>Fatalities</i>	<i>Rate</i>	<i>Fatalities</i>	<i>Rate*</i>
0 – 14	56	8.8	48	7.6
15 – 24	196	43.5	222	50.9
25 – 34	141	36.9	139	36.4
35 – 44	150	36.9	154	40.1
45 – 64	222	33.7	213	29.7
65 and over	125	35.8	118	32.4
Total	890	30.9**	894	30.8**

Source: Mississippi State Department of Health, Vital Statistics, 2003 – 2007. *Rate per 100,000. **Age adjusted to the 2000 U.S. Population.

The motor vehicle fatality rate in Mississippi decreased 0.3% over the last five years. In 2006, the death rate in Mississippi due to motor vehicle crashes (33.43 per 100,000) was 123% higher than the national rate (14.97 per 100,000).

Although the motor vehicle fatality rate in Mississippi did not change significantly between 2003 and 2007, the current status remains very poor, justifying a low grade assignment for this category.

Children are more likely to be properly restrained when the driver is properly restrained.²

In the United States, child safety seats reduce fatal injury to children by 71% for infants less than one year old and by 54% for toddlers 1 to 4 years of age.³ Among children 4 to 7 years of age, booster seats have shown to reduce injury risk by 59% compared to safety belts alone.⁴

According to the National Highway Traffic and Safety Administration, in 2007 over 34% of motor vehicle crash-related deaths in Mississippi were alcohol related.⁵

Nationwide, approximately 42% more fatal crashes occurred in rural settings than urban ones.⁶

Poisoning

GRADE: F

Table 3 Poison-related deaths, 2003 – 2007

<i>Age (years)</i>	2003		2007	
	<i>Fatalities</i>	<i>Rate</i>	<i>Fatalities</i>	<i>Rate*</i>
0 – 14	0	0.0	1	< 1
15 – 24	19	4.2	22	5.0
25 – 34	39	10.2	66	17.3
35 – 44	55	13.5	59	15.4
45 – 64	50	7.6	114	15.9
65 and over	9	2.6	12	3.3
Total	172	6.2**	275***	9.5**

Source: Mississippi State Department of Health, Vital Statistics, 2003 – 2007. *Rate per 100,000. **Age adjusted to the 2000 U.S. Population. ***Total includes one death of unspecified age.

The poisoning fatality rate in Mississippi has increased 53.2 percent over the last five years.

During the four year period from 2003 to 2006, Mississippi's rate of unintentional poisonings (7.6 per 100,000) was comparable to the national rate of 7.7 per 100,000.⁶

Nationwide, 53% of poison exposures occur in children under the age of 6 years. In Mississippi, 87% of poisoning fatalities occur in adults, ages 25 – 64 years.

In 2007, 91% of unintentional poisoning fatalities in Mississippi were caused by exposure to drugs or other biological substances.

Falls

GRADE: C

Table 4 Fall-related deaths, 2003 – 2007

<i>Age (years)</i>	2003		2007	
	<i>Fatalities</i>	<i>Rate</i>	<i>Fatalities</i>	<i>Rate*</i>
0 – 14	1	< 1	0	0.0
15 – 24	2	< 1	2	< 1
25 – 34	1	< 1	2	< 1
35 – 44	5	1.2	2	< 1
45 – 64	24	3.6	24	3.3
65 and over	132	37.8	158	43.3
Total	165	5.9**	188	6.4**

Source: Mississippi State Department of Health, Vital Statistics, 2003 – 2007. *Rate per 100,000. **Age adjusted to the 2000 U.S. Population.

From 2003 to 2007, the fatality rate due to falls increased 8.5%.

In 2007, 84% of Mississippi's fall-related fatalities occurred in persons over 65 years of age, compared to 80% in 2003.

Most falls occur in the home. Stairs in the home present one of the greatest challenges in fall prevention. Most stair falls take place on short flights with five or fewer steps.

Inhalation/Ingestion

GRADE: C

Table 5 Deaths related to inhalation and ingestion, 2003 – 2007

<i>Age (years)</i>	2003		2007	
	<i>Fatalities</i>	<i>Rate</i>	<i>Fatalities</i>	<i>Rate*</i>
0 – 14	3	< 1	5	< 1
15 – 24	3	< 1	1	< 1
25 – 34	6	1.6	1	< 1
35 – 44	3	< 1	1	< 1
45 – 64	12	1.8	19	2.6
65 and over	60	17.2	57	15.6
Total	87	3.1**	84	2.8**

Source: Mississippi State Department of Health, Vital Statistics, 2003 – 2007. *Rate per 100,000. **Age adjusted to the 2000 U.S. Population.

Over the last five years, the inhalation/ingestion fatality rate has decreased by 9.7%.

In Mississippi, almost 68% of all fatalities occur among persons 65 years of age and older.

Two-thirds of choking fatalities among children are caused by chewing food or candy incompletely or mouthing small objects.⁸

In older adults, risk factors for choking include advancing age, poor fitting dental work, and alcohol consumption. Peanuts are the most common food item to cause choking.⁸

Fire and Flames

GRADE: C

Table 6 Fire and flame-related deaths, 2003 – 2007

<i>Age (years)</i>	2003		2007	
	<i>Fatalities</i>	<i>Rate</i>	<i>Fatalities</i>	<i>Rate*</i>
0 – 14	9	1.4	19	3.0
15 – 24	4	< 1	3	< 1
25 – 34	3	< 1	5	1.3
35 – 44	8	2.0	8	2.1
45 – 64	27	4.1	34	4.7
65 and over	28	8.0	15	4.1
Total	79	2.8**	84	2.8**

Source: Mississippi State Department of Health, Vital Statistics, 2003 – 2007. *Rate per 100,000. **Age adjusted to the 2000 U.S. Population.

The fire and flame-related fatality rate in Mississippi has not changed during the last five years.

In 2007, fire departments in the United States responded to nearly 414,000 residential fires or one every 76 seconds.⁹ A working smoke alarm is not present in two-thirds of the residential fires in which a child is injured or killed.¹⁰

Home cooking equipment is the primary cause of residential fires and fire-related injuries in the United States. Residential fires caused by smoking materials (such as cigarettes) are the leading cause of fire-related death and the third leading cause of fire-related injury.¹⁰

Most victims of fire die from smoke or toxic gases, not from actual burns.¹⁰

In 2006, the rate of death due to residential fires in the Southern region of the United States (1.13 per 100,000) was 37% higher than the national rate (.89 per 100,000).⁶

Other Types of Injury

Pedestrian and Bicycle Injuries

Each year, an average of 73 Mississippi pedestrians are fatally injured.¹ In addition, 34 bicycling fatalities have been reported in the last five years. Environmental issues, such as poorly marked crosswalks, lack of sidewalks, and inadequate traffic signals, are to blame in some communities. In addition, more Mississippians need to be educated on pedestrian and bicycling laws, encouraged to wear proper protective equipment, and trained to be more aware of their surroundings.

Firearm Discharge

Firearm discharge accounts for many injuries and deaths each year. Over the last five years, approximately 69% of suicides in Mississippi are completed with a firearm.¹ In 2007, 212 Mississippians lost their lives due to firearm discharges that could have been prevented. Youth are especially vulnerable to unintentional injuries due to firearms. In the last three years, 11 children under the age of 15 years have unintentionally lost their lives due to guns.

Suicide

Over the last five years, 1,764 Mississippians have committed suicide.¹ An average of 353 people in Mississippi commit suicide each year. In 2007, 57 percent of people who committed suicide were between the ages of 25 and 54 years. The suicide rate was 13.4 in Mississippi (2007), which is 21.7 percent higher than the national average per 100,000 people.

All-Terrain Vehicles

From 2002 to 2007, 115 people died from ATV-related crashes in Mississippi, an increase of 70% over the past six years.¹ ATV-related crashes account for 1.3% of all unintentional injury deaths in Mississippi, and can be controlled by the use of safety helmets.

Injury and Violence Prevention

The Division of Injury and Violence Prevention is part of the Office of Preventive Health at the Mississippi State Department of Health. The program works to reduce the burden of injury across the state of Mississippi by coordinating federally-funded projects and working with local partners to establish and maintain evidence-based interventions. For more information, please visit www.healthymms.com/injury.

The Division of Injury and Violence Prevention currently consists of three main focus areas: Child Passenger Safety, Fire Prevention, and Safe Routes to School.

Child Passenger Safety

The Child Passenger Safety Program at the MSDH is funded through Mississippi's Office of Highway Safety and the National Highway and Traffic Safety Administration. The program is designed to educate all Mississippians on the importance of child occupant protection, distribute child safety seats to families in need, and train Child Passenger Safety Technicians through a close partnership with Safe Kids Mississippi.

Fire Prevention

The Fire Prevention Program is funded through the Centers for Disease Control and Prevention. The program includes a smoke alarm installation project and the Fire Academy for Kids program. The Fire Coordinator at the MSDH trains fire department staff from across the state on public education and safety activities.

Safe Routes to School

The MSDH receives a non-infrastructure Safe Routes to School grant through the Mississippi Department of Transportation. The Safe Routes Coordinator collaborates with state and local agencies to provide bicycle and pedestrian safety education throughout the state. Schools may request a presentation by visiting the Safe Routes to School website, www.healthymms.com/saferoutes.

Data Sources

This document was compiled by the Division of Injury and Violence Prevention at the Office of Preventive Health, Mississippi State Department of Health. Vital Statistics' death records for Mississippi comprise the source of the data contained in the tables of this report card. Additional information was obtained from the National Center for Injury Prevention Control, Mississippi Department of Public Safety, and the National Safe Kids Campaign. Rates are presented for comparisons between 2003 and 2007. Rates based on fewer than five deaths are unstable and therefore reported as < 1.

Rates

The 2003 and 2007 estimated census populations were used to calculate the age specific rates per 100,000 people per year. The overall rates were age-adjusted to the 2000 U.S. population estimates.

Mississippi Population Figures

Mississippi's population is 61% white and 39% non-white (92% of the non-white population is African-American). Population figures for Mississippi were obtained from the U.S. Bureau of Census.

Percent Change

The percent change was obtained by subtracting the most recent year's total from the first year's total, dividing the difference by the latter, and then multiplying by 100.

Table 7 Percent Change of Mississippi Population by Age, 2003 – 2007.

<i>Age (years)</i>	<i>Mississippi Population</i>		<i>Percent Change</i>
	<i>2003</i>	<i>2007</i>	
0-14	633,103	635,195	< 1% increase
15-24	450,672	435,916	3% decrease
25-34	382,352	381,649	< 1% increase
35-44	406,212	383,745	6% decrease
45-64	659,537	717,666	9% increase
65+	349,407	364,614	4% increase
All Ages	2,881,283	2,918,785	1% increase

Source: U.S. Bureau of Census.

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